

NASA Celebrates 15 Years of Success



FIRST NASA ADMINISTRATOR—In the above picture, the late President Dwight D. Eisenhower has just sworn in Dr. T. Keith Glennan (right) as first NASA Administrator and Dr. Hugh L. Dryden as first Deputy Administrator. NASA officially opened for business October 1, 1958.

During the week of October 1, NASA will observe its 15th anniversary, marking a string of successes any agency would be proud to claim.

Dr. James C. Fletcher, NASA Administrator, stated, "This is a significant anniversary, not just because of the number 15, but because so much has been accomplished in the five years since we celebrated our 10th anniversary in 1968.

"It is a happy anniversary because we have successfully completed the major programs of our first 15 years, except Skylab, which still has several months to go, and because we have now

made a good start on the new programs that will help make the next 15 years exciting and productive . . ." Dr. Fletcher added.

The National Aeronautics and Space Act of 1958 authorized the establishment of NASA and directed the new agency to "expand human knowledge of phenomena in the atmosphere and space" and

to carry out the stated policy of the United States that "Activities in space should be devoted to peaceful purposes for the benefit of all mankind."

NASA took tangible form on October 1, 1958 with the assignment to it of the 43-year old National Advisory Committee for Aeronautics. This organization, headquartered in the historic Dolley Madison House, Washington, D. C., directed five field laboratories: Ames Aeronautical Laboratory, (now Ames Research Center), Mountain View, California; High-Speed Flight Station (now Flight Research Center), Hampton, Virginia; Lewis Flight Propulsion Laboratory (now Lewis Research Center), Cleveland, Ohio; and the Pilotless Aircraft Research Center (now Wallops Station), Wallops Island, Virginia.

To this nucleus were added other responsibilities. The Naval Research Laboratory's Project Vanguard was shifted to NASA, as was the Army's Jet Propulsion Laboratory contract opera-

tion managed by the California Institute of Technology, and the Development Operations Division of the Army Ballistic Missile Agency at Huntsville, Alabama. The latter developed into the Marshall Space Flight Center. Transferred from the ABMA with the Development Operations Division was a part of ABMA at Cape Canaveral, Florida, that was set up as the Launch Operations Directorate of the Marshall Center. Later, this grew into the John F. Kennedy Space Center, Kennedy Space Center, Florida.

NASA established other major facilities: Goddard Space Flight Center, Greenbelt, Maryland; Manned Spacecraft Center (now Johnson Space Center), Houston, Texas; KSC Western Test Range Operations Division, Lompoc, California; and jointly with the Atomic Energy Commission, the Space Nuclear Systems Office, Washington, D. C. and its field installation, the Nuclear Rocket Development Station, Jackass Flats, Nevada.

Facilities set up during peak years of space activities but now reassigned or with reduced use in the space program include: Electronics Research Center, Cambridge, Massachusetts (now part of the Department of Transportation); Mississippi Test Facility, Bay Saint Louis, Mississippi; and Michoud Assembly Facility, New Orleans, Louisiana.

NASA's Manned Space Flight Program began with Project Mercury, organized on October 5, 1958 to orbit a manned spacecraft, investigate man's reactions to and abilities in space flight, and recover both man and spacecraft. The Mercury suborbital flight took place May 5, 1961.

Project Gemini, with two-man crews and longer Earth-orbital flights, extended the technology and experience gained in Project Mercury and paved the way for lunar landings in the Apollo Program.

While Apollo manned missions continued to expand man's knowledge of Moon, NASA proceeded with the Skylab Program, establishing the Nation's first manned Earth-orbiting space station.

Scheduled for 1975 is the Apollo-Soyuz Project (ASTP), a joint U.S. - U.S.S.R. mission aimed at establishing an international crew rescue capability as well as possible joint scientific space missions in the future.

At the end of the decade, a new vehicle—the Space Shuttle will begin regular flights to carry men and satellites into space with far greater reliability and at lower cost than is now possible.

The shuttle will liftoff from Earth like a rocket, fly in orbit as spacecraft, and return to land on a runway in a manner similar to a jetliner.

The space program has made many contributions to mankind. Some of the benefits are improved weather forecasting, better global communications, pollution control, fire protection techniques and materials, and improved rechargeable heart pacers.

NASA has also developed workable management systems that can be applied to any new

ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER

HOUSTON, TEXAS



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NASA Centers Hard At Work As 15th Anniversary Approaches

Huge rockets soaring into the far horizons of space . . . Computers plotting trajectories, fuel consumption, orbits and reentry times and places . . . Technicians at consoles following the progress of launch vehicles and spacecraft . . . Man exploring the Moon, experimenting in Space—working for the benefit of humanity.

This is NASA—engulfed in the exciting world of space flight. But behind the drama are functions, organization and dedicated people.

As the space agency observes its 15th anniversary during the week of October 1, NASA Centers throughout the country will be hard at work, striving to meet the challenges of man's ventures into space.

The first week in October will be especially busy for The Johnson Space Center. Unmanned operations of the Skylab space station will be conducted from the Mission Control Center, with 24-hour days necessary to keep all systems operating properly until the third Skylab crew is ready to enter the orbiting laboratory in early November.

While the SL-2 crew participates in technical reviews and press conferences to discuss their activities aboard Skylab, Astronauts Gerald Carr, Edward Gib-

son and William Pogue will be training for the third and last Skylab Mission.

Crews at the Kennedy Space Center will be busy recycling and retesting for the final Skylab launch from Pad B of Complex 39.

On October 1, at Western Test Range, Delta 97 will undergo a simulated flight test in readiness for its launch October 18. Also, guidance and control checkouts and leak checking will be

in progress on Delta 98. Titan Centaur, newest of NASA's launch vehicles, will be on the stand at Complex 41 undergoing preparations for its Composite Electrical Readiness Test before its scheduled proof flight on January 5.

Mariner 73, scheduled for the first two-planet flyby to obtain Venus environment and atmosphere data and to conduct exploratory investigation of Mercury's environment and surface,

will be on complex 36B at KSC. Technicians will be preparing it for a Flight Events Demonstration October 12 and launch on October 30.

Marshall Space Flight Center, in Alabama, and the European Space Research and Technology Center (ESTEC) of the European Space Research Organization (ESRO) are completing preliminary design and definition of the Sortie Lab Program. The Sortie Lab is being developed as a low cost, reusable manned vehicle, with pallet, to be carried in the cargo bay of the Space Shuttle.

MSFC is also engaged in an

Skylab-3 Astronauts Return Home Safely After Record Stay In Space

The Skylab 3 Astronauts are back in Houston after successfully completing man's longest exploration in space.

NASA Administrator James C. Fletcher praised the mission, "Skylab 3 is one of the most significant ventures of all times and certainly is a fitting capstone to NASA's first 15 years.

"It is appropriate that NASA's 15th anniversary occurs as the Skylab program is in the midst of its flight phase, because Skylab marks the transition of the space program from a period dominated by exploration of the space around us as a global resource." Fletcher observed.

The crew splashed down in the Pacific about 230 miles south-

west of San Diego Tuesday evening. They arrived at Ellington Air Force Base late Thursday.

The crew has undergone medical examinations and doctors are impressed with their physical conditions after 2 months in a weightless environment.

In a message to the SL-3 crew, President Nixon said, "By your scientific endeavor and your physical endurance, you have converted a space vehicle into a repository of more scientific knowledge than mankind can immediately consume. In doing so, you have provided the basis for a quantum jump in human knowledge."

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PRESENT NASA ADMINISTRATOR—Dr. James C. Fletcher, NASA Administrator, looks over the north buildings—Lunar Receiving Laboratory and other facilities—during a visit here on May 27, 1971. Dr. Robert R. Gilruth, then Center Director, points out the facilities from a window in his office.



FLIGHT DIRECTOR—Flight Director Neil Hutchinson stands behind his console in the Mission Control Center during the hours before the second Skylab crew undocked their command module from the orbiting space station. Hutchinson's silver flight control team was on duty Tuesday as the Skylab cluster was deactivated for the month and a half it will be without a crew. On the rear-projection map behind Hutchinson is the mascot of the silver flight team, the spider Arachne, of the same species as the two spiders carried aloft by the second crew.

\$6.5 Million Subcontract Awarded to Corning Glass

Corning Glass Work's Special Products Division in Canton, N. Y. has been selected to develop, fabricate, assemble and test the windshields and windows for the Space Shuttle orbiter under a five-year, \$6.5 million subcontract.

Selection of the company was announced recently by Rockwell International Corporation's Space Division, developer of the shuttle orbiter for NASA. The Space Shuttle is the first reusable space transportation system.

The shuttle orbiter will have six windshield sections and nine windows, all in the forward, or

crew compartment area. Panels will be made of varying combinations of fused silica and aluminosilicate glass, and will range in size from 13 to 15 inches for the windows, up to approximately 43 inches for the windshield sections.

Fused silica is a very pure glass with high optical quality and resistance to heat and thermal shock. Aluminosilicate glass is a low expansion glass that can be tempered to provide maximum mechanical strength.

The Shuttle is planned as a highly versatile workhorse space transportation system that will

meet the nation's space operations needs of the future. It will be able to carry a variety of cargo—up to 65,000 pounds—to Earth orbit at costs far less than those of today.

Rockwell International, a major multi-industry company is a leading manufacturer in five principal areas: automotive, aerospace, electronics, industrial products and utility and consumer products. It has strengths in research, development and systems engineering, and a growing position in a number of emerging industries.

JSC Invites Lockheed to Test Shuttle

JSC has invited Lockheed Aircraft Corporation, Burbank, California through its Houston operations to submit a proposal for wind tunnel tests using a C-5A as a ferry aircraft to carry the Space Shuttle orbiter.

In the proposal, the airplane-like orbiter will be mounted "piggyback" on the C-5A. The tests will be conducted in Lockheed's Low Speed Tunnel located in California using a small scale model of the latest orbiter configuration.

Purposes of the wind tunnel tests are to determine: (1) if

the plan is technically feasible, and (2) if feasible, determine the "optimum location for the piggyback" trip.

JSC estimates that 70 test runs will be needed using approximately 40 hours of wind tunnel run time. The work is to be completed by December 14, 1973 and is being analyzed for the Structures and Mechanics Division.

The orbiter is a multi-purpose delta wing vehicle capable of operations in the weightless arena of space and it also will fly in Earth's atmosphere.

Soviet Team Works At JSC; NASA Delegation Goes To Moscow Monday

Ten scientists and engineers from the Soviet Union recently began an extended stay at JSC, where they will work with U.S. engineers to evaluate the docking system to be used in the Apollo-Soyuz Test Project.

The Soviet team is headed by Vladimir S. Syromyatnikov, Senior Researcher of the Soviet State Research Institute on Machine Building.

The full-scale development hardware built by the two nations is now at JSC for an extensive series of tests as to its compatibility and operation. The docking module will be used in the Apollo-Soyuz joint mission scheduled for July 1975.

First in the planned sequence of tests will be an evaluation of the two sections, one prepared by each nation for proper mating. Following this, pressure integrity and structural strength of the combined system will be checked.

The U.S. - U.S.S.R. team will also make dynamic tests of the actual docking of the two elements. Each of the components will perform the active docking maneuver with the other element

as a target. Other tests include a study of the system under thermal extremes expected in space. The entire sequence of tests could take up to three months.

On October 1, a 47-member NASA delegation will begin two weeks of meetings in Moscow on ASTP.

Headed by Technical Director Glynn S. Lunney of JSC, the delegation will consist of members of three working groups—Mission Model and Operational Plans, Communications and Tracking and Life Support Systems. ASTP Director Chester M. Lee of NASA Headquarters and several other representatives will join the group for the second week.

Agenda items include joint experiments, safety assessment reports, a communications system design review, continued work on detailed crew procedure, planning for a familiarization visit to the Soviet Union by the U.S. Crew in November, planning for joint mission control center simulations and discussions of long term requirements for compatible docking systems.

JSC Toastmasters Sponsor Meeting on Mass Transit

The JSC Toastmasters Club will sponsor a meeting October 2, at 6:30 p.m. at the Ramada Inn, 2020 NASA Road 1 to discuss the Harris County mass transit election which will take place on October 6.

The election ballot will read: "Shall the creation of the Houston Area Rapid Transit Authority be confirmed and shall the board of such authority be authorized to levy and collect motor vehicle emission taxes?"

During Tuesday's meeting, Knox W. Askins, La Porte attorney and appointee to the Houston Area Rapid Transit Authority, will speak affirmatively on the issues of the election. Speaking against the proposal will be engineer Eugene Maier, chairman of the board, Crane-Maier & Assoc. Inc., and traffic transportation consultant.

Following the two presentations, a question and answer session from the audience will be held.

The meeting is open to the public. Dinner will be optional.

WHIP up a SUGGESTION



and SEND it to US!

**Mail Suggestion Form 624 to:
AH5/AWARDS OFFICE**

Recreation Activities Now Underway

Activities at the Robert R. Gilruth Recreation Facility are shaping up and will soon be in full swing.

On October 10, the second series of classes for the Arts and Crafts Program will begin. An instructor will direct decoupage and dimensional purse construction. The cost of classes will be \$2.50 per person, not including

purse boxes and hardware. Enrollment will be limited to 25 students.

Also, a meeting to organize basketball teams will be held in room 215 of the Recreation Center, October 18 at 5:00 p.m.

Employees interested in participating in programs at the Recreation Facility should contact Tim Kincaid, x3594.

ROUNDUP

NASA LYNDON B JOHNSON SPACE CENTER HOUSTON TEXAS

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Roundup Swap-Shop

Swap Shop advertising is available to JSC and on-site contractor personnel. Articles or services must be offered as advertised, without regard to race, religion, sex or national origin. Ads should be 20 words or less, including home telephone number. Name and office code must accompany, but need not be included in ad copy. Typed or printed copy must be received (AP3 Attn: Roundup) by Thursday of the week before publication.

HOUSEHOLD ARTICLES

Maple desk, twin bed, assorted chairs, telephone cable reels, misc. paintings, photographs suitable for framing, Liebhardt, x 2231 or 944-6555.

Sofa dbl bed, \$125, walnut tea table Spanish labor chair and folding stool w/ velvet cushions, \$15 each, 482-1179.

Dinette Set, walnut, 4 chairs, \$35, center section of sectional couch w/ corner table/ cocoa color, \$25, pole lamp, walnut, \$12 magazine rack, \$3, Hoover upright cleaner, \$12, G.E. Iron, \$2, reel type lawnmower li new, \$20, sm tricycle, \$4 Carol, 482-3085.

G.E. comb washer/dryer, avocado, xlt cndn, 29 1/2 x 24 1/2, \$60, x 2851 aft 5, 645-3635.

Rd wool braided rug, approx. 74" rd. blue/green, xlna cndn, \$25, 645-3635 aft 5.

MISCELLANEOUS

Sears Deluxe Bathinette (bath and dress table) \$8, mat clothes, 10, 11 and 12's, G.E. feeding plate, \$1.00, 488-2248.

CB radio, Lafayette HB 400 base, equipped w/ Turner plus mike, \$125, Clifford, 948-9856

MonroeMatic desk top calculator, Model 8N 213, xlt cndn, Ray Irwin, 333-3097, \$75.

Two 2' long padded 2" X 4" boat trailer pads w/ hangers. \$5 pr of Galv, bolt-on, elevated trailer light stands, fits any trailer keeps lights dry, \$5-13", 4 lug Galv trailer rim nw cndn, \$10, 1 7/8" trailer coupling and ball for 3" sq tongue. \$4, new 4x pwr rifle scope, \$10, Mike x 6469 or 538-1047.

Shotgun, Remington 1100, 20 ga, 28 in. mod, choke, vent rib barrel, li nw, \$136 firm, Spivey, 488-0369.

VEHICLES

Honda 50 cc motorcycle, \$60, runs, plates, title, 554-6093, 483-2646.

71 Yamaha, 250, xlt cndn, inspected w/ 23 license, Liebhardt, x 2231 or 944-6555 aft 5:30.

70 Chevrolet Kingswood sta wgn, z seat, 350 V-8, auto, air, ps, radio, \$1700 488-5378.

Honda SL-100, 72, street bike, gd cndn, low mi, \$250 w/ helmet, Collier, 5536 or 485-4143.

65 Mustang, 289 conv, 4 on floor, xlt cndn, R. A. Colonna, 3937 or 554-6071 aft 6 p.m.

64 Valiant Big 6, auto, air, \$595, Bullock, 4861 4881042.

68 Pontiac LeMans, 2-dr htp, 350 engine, 2 barrel, 3 spd transmission, bucket seats w/ cnsl, recently overhauled-gd tires, 332-3846, Wilton, aft 5:30 p.m.

Dunebugg, Corvair, Calif, custom must sell, Bullock 488-6095.

72 Vega Wgn, 16000, miles; small engine STD transmission, \$100 ovr wholesale, Kennedy, 488-5691.

57 Chevy 2-dr wgn, 6 cyl, std, gd cndn, body above average, \$250, Trent, 483-4771, 332-1185.

Girls' bike, 20", hot pink, seat adjustable for smaller child, 488-1689, \$12.

71 Plymouth Satellite Sebring, 2 dr ht, custom purple w/ half white vinyl top, cuto trans, pwr stf, air, heater, radio, \$2100, Marilyn, x-5861 or x-5827.

65 Mustang, spd, 289, \$450, new TRW pistons w/ rings, (30/10, 5-1 compression), \$114, aft 5, 471-4071.

62 Merc Meteor, 6 cyl, standard, gd economical trans, nds tune up, bargain for \$150, Olszewski, 5551 or 534-4452.

67 Chevrolet, Bel Air, 4 dr, air 1 owner, \$500, 946-6361.

73 Lincoln Continental Town Coupe, metallic brown, beige, vinyl roof, power, stereo AM/FM Tape, lw mi, JSC-CU financed, Chevers, 481-3184.

71 Pinto, 2 dr AT, radio, 2000 cc eng, dlx int, 24,000 mi, \$1495, (\$250 below NADA retail) 481-2663.

71 Pontiac, 2 dr, vinyl top, two tone, beige, auto, air, ps, pb, nw tires, 350 V8 32,000 mi, xlt cndn, \$2550, 483-5293.

PROPERTY AND RENTALS

Lease, 2 bedroom house, South Houston, \$90/mo, 944-4310.

Point Lookout, wooded waterfront lot on Lake Livingston, 75 x 137, utilities, restrictions, \$3295, 946-7587.

5 acres near Conroe, Texas, just off Highway 105, Well drained, many big trees, ideal for living or wk end fun, \$15,000, aft 6 p.m. 481-0095.

PETS

Cocker Spaniels, AKC registered, 7 wks, shots, \$75, 482-7858.

AKC registered German Shepherd pups, gd disposition, potential show quality, Howard, 922-1739, AC 713.

Gentle paint mare, gd for play and pleasure, on pasture in Webster, Lindsey, 5258 or 332-2079.

BOATS

Information on prices and condition of used LIDOS for sale by owners. R. A. Hoover 334-2392.

12' aluminum Seaking Semi V, 3 1/2 hp, ESKA O/B (1 1/2 hrs operating time) oars, locks, anchor, \$200, Klotz 488-1514 aft 5 p.m. or wkends

Nifty fiberglass ski boat w/1969 55 hp Johnson, painted trailer w/ new lights, bearing buddies, \$1200, Allgeier, 333-4627.

WANTED

Two tickets to Texas/Oklahoma football game in Dallas October 13, 538-1147 (Kemah), aft 5.

Carpool from Dansbury/Angleton area, hours presently 8-4:30, Howard, 922-1739 or 483-2291.

5 to 20 woode acres for homesite (Woodville/Chester, Tx area) prefer hiway 190 between Livingston and Woodville or Hiway 287 between Woodville and Chester M. Hall, 483-3734 or 946-4453.

Europe To Cooperate In Shuttle Project

An unprecedented new international cooperative project is provided for in a Memorandum of Understanding signed in Washington Monday by Dr. James C. Fletcher, NASA Administrator, and Dr. Alexander Hocker, Director General of the European Space Research Organization (ESRO).

Nine European countries will design, develop, manufacture and deliver a "Spacelab" flight unit which will be an important element of NASA's Space Shuttle system. The Spacelab will be carried in the Space Shuttle Orbiter, which will look like a delta-winged airplane about the size of a large jet liner. The Spacelab will have two elements, a pressurized manned laboratory module permitting scientists and engineers to work in a normal shirt-sleeve environment, and an instrument platform, or pallet, to support telescopes, antennae and other equipment requiring direct space exposure.

The Spacelab module and pallet will be transported, either separately or together, to and from orbit in the Orbiter payload bay, and will be attached to and supported by the Shuttle Orbiter throughout missions lasting seven to thirty days. At the end of each flight the Orbiter will make a runway landing, and the Spacelab will be removed and prepared for its next mission.

The NASA/ESRO agreement represents a major step in the sharing of space costs between the U.S. and European countries participating in this cooperative project. The estimated cost of \$300-400 million for the Spacelab

will be borne by the ESRO countries involved.

The European Spacelab represents a significant contribution to the space transportation system in an area not funded by the U.S. It provides for the timely availability of a supporting system important to realizing the full potential of the Shuttle; it will also facilitate joint use programs, many entailing the activities of U. S. and European astronauts.

Under the terms of the Memorandum of Understanding, NASA will procure from ESRO any additional Spacelab units of the same basic design which may be needed for U.S. programs. The U.S. will not develop any unit of its own which would substantially duplicate the design and capabilities of the first Spacelab.

It is currently planned that the first operational space flight of the Shuttle will occur in late 1979. To permit adequate time for experiment integration, check out and compatibility testing, the Spacelab unit will be delivered about one year earlier.

Subsequent to the delivery of the Spacelab by ESRO, NASA will manage all operational activities, including crew training and flight operations. Flight crew opportunities will be provided in conjunction with flight projects sponsored by ESRO or by governments participating in the Spacelab program and utilizing the Spacelab. It is contemplated that there will be a European member of the flight crew of the first Spacelab crew.

While it is too early to de-
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SL-4 CREW—Pictured in their space suits with a globe and a model of the Skylab space station are the prime crewmen for SL-4. Left to right are Astronaut Gerald P. Carr, commander; Scientist-Astronaut Edward G. Gibson, science pilot; and Astronaut William R. Pogue, pilot.



SL-4 BACKUP CREW—These three men, pictured in the Multiple Docking Adapter at JSC, are the backup crew for the SL-4 mission. They are Astronaut Vance D. Brand, center, commander; Scientist-Astronaut William B. Lenoir, left, science pilot; and Astronaut Don L. Lind, pilot.

The JSC Federal Credit Union Board of Directors has recently voted to issue "Demand Notes" (hereinafter called "Note") to Credit Union members. This action was initiated to reduce the outflow of cash by members who have large share balances and can take advantage of the current high interest rates available at other financial institutions. The rates on these Notes are competitive with other institutions and members are urged to continue doing business with their credit union in lieu of withdrawing it and investing elsewhere. Listed below is the data on these Notes:

- a. Members must maintain a \$2,000 balance in their share accounts while in possession of the Note. If the share balance drops below \$2,000, the reduced rates specified in (1) and (2) below shall apply.
- b. Notes may be renewed at the option of the credit union and the member.
- c. There will be no partial payoff of Notes. The member will either hold or redeem it.
- d. Notes will not be covered by Life Insurance nor are they guaranteed by any Federal Program.
- e. Monies currently pledged as collateral for other credit union loans may not be used to purchase Demand Notes.
- f. Only a limited amount of these Notes will be issued. They will be available on a "first come, first served" basis.
- g. Interest will be paid to one account only.
- h. Notes may be used as collateral for other credit union loans.
- i. Notes shall be issued in \$500 multiples.

Two types of Notes will be issued:

- (1) Minimum Note amount shall be \$3,000. Notes from \$3,000 to \$10,000 shall be of 2-year duration and shall receive interest at the rate of 6 1/2 percent per annum, paid quarterly. Interest payments will be made in cash at the end of each quarter, or deposited to the member's share account, at the Note owner's option. If the Note is redeemed before the maturity date, the interest rate shall be 1/4 percent less than the rate paid to share accounts during each quarter that interest accrues. Interest paid in any quarter before the redemption shall be adjusted accordingly.
- (2) Notes \$10,000 or over shall be of 180-day duration and shall receive interest at the rate of 8 percent per annum. Interest will be paid at the maturity date of the Note. If the Note is redeemed before the maturity date, the interest rate will be reduced to 4 percent per annum.

If you wish more information or wish to apply, please call Peggy Giacometto for an appointment on 483-2066.

NASA Centers Hard At Work As Anniversary Approaches

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assessment of upper stage operations for the Space Shuttle. This is a joint activity with the Air Force which will lead to decisions on the upper stage concept by the end of 1973. Johnson Space Center, Lewis Research Center and Kennedy Space Center are assisting Marshall in this effort.

The Mississippi Test Facility will be used by MSFC for acceptance and developmental testing for the main engine propulsion system for the Space Shuttle. MTF has kept its highly specialized rocket facilities ready for test programs and is concentrating on the application of space technology to earthly problems.

Langley Research Center Hampton, Virginia, is completing preparations for a public open house on Oct 6 featuring the Center's work in aeronautics and space technology.

Viking Project engineers and scientists will continue work for the launch of the Mars-landing spacecraft mission to take place two years from now. Critical design reviews of major hardware components have begun and attention is on final decisions concerning the experiments to be included.

Meanwhile, Ames Research Center Moffett Field, California, will begin pre-qualification testing for the Mars Life Detection Experiment as a prelude to assembly of flight hardware for the Viking mission. The fully automatic system represents the first attempt by the U.S. to place such a payload on a neighbor planet.

The Pioneer Project team at Ames is gearing up for the Pioneer 10 to swing around Jupiter between November 28 and December 8 this year. Pioneer 11 is now well into the Asteroid Belt on the way to a second Jupiter rendezvous in December 1974. The two Pioneers are the first to penetrate the Asteroid Belt and explore the outer planets.

The Flight Research Center, Edwards, California, is presently flying the remaining unpowered (glide) flights of the X-24B, an experimental craft that could be the forerunner of future hypersonic aircraft capable of cruising at the edge of space. Next month, the Center expects to be getting ready to make the first rocket-powered flight that will eventually attain speeds of 1,000 mph and altitudes of 80,000 feet.

Goddard Space Flight Center, Greenbelt, Maryland, reports it barely has time to pause in observing NASA's 15th anniversary while continuing a schedule of Earth Resources result briefings, comet investigation coordination efforts, scientific and applications satellite launchings and preparations for launches.

Perhaps the most spectacular

event Goddard has responsibility for is the coordination of NASA efforts in observing the brilliant comet Kohoutek as it emerges from the area of Mars/Jupiter and swings near the Sun at Christmas time. It is expected to be as bright as a full moon at that time, and astronomers will have a rare chance to study it in great detail.

The SL-4 crew will also observe Kohoutek. Implementation of plans for observing the comet will take place on a day-by-day basis in mission control at JSC.

The Jet Propulsion Laboratory, Pasadena, California, is helping NASA celebrate its anniversary by putting the final touches on Mariner 10, the spacecraft which will be launched November 3 on history's first dual-planet flight to Venus and Mercury. The Mariner is being readied at Cape Kennedy for the Mission which will take it past Venus next February and by Mercury late in March.

Lewis Research Center, Cleveland, Ohio, is completing a series of briefings on its achievements to leaders of government, business and industry, labor and education, the general public and several technical groups. Thousands of people have listened to talks and viewed exhibits reflecting the theme "Technology in the Service of Man."

Topics covered the Center's role in developing technology for quieter and cleaner aircraft, short-haul planes to alleviate airport congestion, advanced energy conversion systems to meet electric power needs, tougher materials and better lubricants, spare electronics, and applications satellites to help man manage and monitor his home planet.

Wallops Station, Wallops, Island, Virginia, will celebrate NASA's 15th anniversary on October 1 by sending up two Nike-Cajuns with University of Colorado economy payloads or experiments. Also during the month, feasibility demonstration tests for the proposed civil military Microwave Landing System will be conducted on the Wallops Airport. A third project scheduled for October is Phase I of a Space Shuttle simulation glide slope test using a T-38 aircraft for JSC.

The launch of the Space Shuttle in 1978 will climax NASA's present approved programs. The challenge now is to plan for the most effective uses of the Shuttle and of NASA's increasing capability to explore planets with unmanned spacecraft.

Dale D. Myers, Associate Administrator for Manned Space Flight, NASA Headquarters, states, "... As the Shuttle's new capabilities develop, there will be many new uses of satellites and assemblies in space, both manned and automated, to perform beneficial tasks that are not even imagined today."

Dr. James C. Fletcher, NASA Administrator added, "We are fortunate to have the experience—and still have the time to do a good job of timely planning for the second half of our next 15 years. I hope that by intensive use of manned and unmanned satellites in the new realm called Near Earth Space we can make this a most exciting and productive period."

Crew Returns

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Dr. Fletcher said that the crew completed more Earth Resources passes and solar observations than planned and were able to collect more medical data and perform more astronomy experiments.

"When we launched the Skylab workshop from the Kennedy Space Center on the morning of May 14, our expectations were high. Those great expectations have been achieved and exceeded. Skylab has given us the confidence and knowledge we need to plan the best and most productive uses of the important new resources at our command," he added.

NASA Celebrates

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programs government of industry may undertake.

In addition, the agency cooperates with industry, universities, and other Government agencies in a variety of projects.

"NASA's future," Dr. Fletcher stated, "is closely tied to our continuing ability to serve many other agencies of government which, in turn, directly serve the people."

Dr. Fletcher emphasized that it is time for NASA to look to the future, "For most of us, the first 15 years of the Space Age were dominated by Apollo—but now we are moving into a period of preparation for much more intensive uses of space in the 1980's. It is time to put more emphasis on where we are going, not where we have been."

Europe Cooperates

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fine detailed terms and conditions for subsequent operation and use of the Shuttle with the Spacelab, NASA will make the Shuttle available for Spacelab missions on either a cooperative (non-cost) or a cost-reimbursable basis. In the latter case, the costs of the launching services provided would be charged as they are at present, for reimbursable launches of foreign satellites.

The Memorandum of Understanding is subject to and implements a government-level Agreement between nine member states of ESRO and the United States.



Fire Prevention Week Draws Near

DID MRS. O'LEARY'S COW REALLY PROVIDE THE INSPIRATION FOR FIRE PREVENTION WEEK?

Certainly one of the great American legends is that of the troublemaking Bossy who is said to have kicked over a kerosene lantern, igniting the catastrophic fire that virtually levelled Chicago on October 9, 1871. Whether there is any substance to this legend or not, may be a minor point, but there is no doubt as to what provided the inspiration for Fire Prevention Week; the very basic human drive known as self-preservation.

More than 200 lives were lost in the Chicago fire. Nearly 100,000 people were made homeless,

and some 2,000 acres of homes and business buildings were reduced to a wasteland of blackened ruins.

Today, the 9th of October still stands as a memorial to the national resolve to keep ourselves and our children secure from the deadly threat of fire. This year Fire Prevention Week has been designated by Presidential Proclamation to be the week of October 7th through 13th.

Let's remember that fire can destroy everything we own if we give it the opportunity. Let's also remember that a burn is an especially painful injury. Just remembering is the most important factor in staying safe from fire.



FUND DRIVE LUNCHEON—JSC Director Christopher C. Kraft, Jr., discusses the 1973 United Fund Campaign with U. S. Attorney Anthony J. P. Farris of the Southern District of Texas. Farris is chairman of the 1973 Campaign.

Contract Awarded To Pan American

Pan American World Airways Inc., Aerospace Services Division, Cocoa Beach, Florida, has been awarded a contract for Plant Maintenance and Operations Support Services at JSC.

Pan American will be responsible for the operation of all utility systems and maintenance of utilities, buildings, roads, ditches, and special equipment at the Center.